

CLAIMS

1. A method of treating psychosis comprising administering a therapeutic amount of an antipsychotic drug condensation aerosol, having an MMAD less than 3 μm and less than 5% antipsychotic drug degradation products, to a patient by inhalation, upon activation by the patient of the formation of, and delivery of, the condensation aerosol.
2. The method of claim 1, wherein said condensation aerosol is formed by
 - a. volatilizing an antipsychotic drug under conditions effective to produce a heated vapor of the antipsychotic drug; and
 - b. condensing the heated vapor of antipsychotic drug to form condensation aerosol particles.
3. The method according to claim 2, wherein said administration results in a peak plasma concentration of said antipsychotic drug in less than 0.1 hours.
4. The method of claim 2, wherein the antipsychotic drug is selected from the group consisting of olanzapine, trifluoperazine, haloperidol, loxapine, risperidone, clozapine, quetiapine, promazine, thiothixene, chlorpromazine, droperidol, prochlorperazine, or fluphenazine
5. The method according to claim 3, wherein the administered aerosol is formed at a rate greater than 0.5 mg/second.
6. The method according to claim 1, wherein at least 50% by weight of the condensation aerosol is amorphous in form.
7. A method of treating depression comprising administering a therapeutic amount of an olanzapine, trifluoperazine, haloperidol, loxapine, risperidone, clozapine, quetiapine, promazine, thiothixene, chlorpromazine, droperidol, prochlorperazine, or fluphenazine condensation aerosol, having an MMAD less than 3 μm and less than 5% olanzapine, trifluoperazine, haloperidol, loxapine, risperidone, clozapine, quetiapine, promazine, thiothixene, chlorpromazine, droperidol, prochlorperazine, or fluphenazine degradation

products, to a patient by inhalation, upon activation by the patient of the formation of, and delivery of, the condensation aerosol.

8. The method of claim 7, wherein said condensation aerosol is formed by
 - a. volatilizing olanzapine, trifluoperazine, haloperidol, loxapine, risperidone, clozapine, quetiapine, promazine, thiothixene, chlorpromazine, droperidol, prochlorperazine, or fluphenazine under conditions effective to produce a heated vapor of olanzapine, trifluoperazine, haloperidol, loxapine, risperidone, clozapine, quetiapine, promazine, thiothixene, chlorpromazine, droperidol, prochlorperazine, or fluphenazine; and
 - b. condensing the heated vapor of olanzapine, trifluoperazine, haloperidol, loxapine, risperidone, clozapine, quetiapine, promazine, thiothixene, chlorpromazine, droperidol, prochlorperazine, or fluphenazine to form condensation aerosol particles.
9. The method according to claim 7, wherein said administration results in a peak plasma concentration of olanzapine, trifluoperazine, haloperidol, loxapine, risperidone, clozapine, quetiapine, promazine, thiothixene, chlorpromazine, droperidol, prochlorperazine, or fluphenazine in less than 0.1 hours.
10. The method according to claim 7, wherein at least 50% by weight of the condensation aerosol is amorphous in form.
11. The method according to claim 7, wherein said olanzapine condensation aerosol has an inhalable aerosol mass density of between 0.2 mg/L and 20 mg/L when delivered.
12. The method according to claim 7, wherein said trifluoperazine condensation aerosol has an inhalable aerosol mass density of between 0.2 mg/L and 10 mg/L when delivered.
13. The method according to claim 7, wherein said haloperidol condensation aerosol has an inhalable aerosol mass density of between 0.2 mg/L and 10 mg/L when delivered.

14. The method according to claim 7, wherein said loxapine condensation aerosol has an inhalable aerosol mass density of between 2 mg/L and 100 mg/L when delivered.

15. The method according to claim 7, wherein said risperidone condensation aerosol has an inhalable aerosol mass density of between 0.1 mg/L and 5 mg/L when delivered.

16. The method according to claim 7, wherein said clozapine condensation aerosol has an inhalable aerosol mass density of between 2 mg/L and 200 mg/L when delivered.

17. The method according to claim 7, wherein said quetiapine condensation aerosol has an inhalable aerosol mass density of between 2 mg/L and 200 mg/L when delivered.

18. The method according to claim 7, wherein said promazine condensation aerosol has an inhalable aerosol mass density of between 2 mg/L and 200 mg/L when delivered.

19. The method according to claim 7, wherein said thiothixene condensation aerosol has an inhalable aerosol mass density of between 0.5 mg/L and 20 mg/L when delivered.

20. The method according to claim 7, wherein said chlorpromazine condensation aerosol has an inhalable aerosol mass density of between 2 mg/L and 200 mg/L when delivered.

21. The method according to claim 7, wherein said droperidol condensation aerosol has an inhalable aerosol mass density of between 0.2 mg/L and 20 mg/L when delivered.

22. The method according to claim 7, wherein said prochlorperazine condensation aerosol has an inhalable aerosol mass density of between 0.5 mg/L and 20 mg/L when delivered.

23. The method according to claim 7, wherein said fluphenazine condensation aerosol has an inhalable aerosol mass density of between 0.1 mg/L and 10 mg/L when delivered.

24. A method of administering an antipsychotic drug to a patient to achieve a peak plasma drug concentration rapidly, comprising administering to the patient by inhalation an aerosol of an antipsychotic drug having less than 5% antipsychotic drug degradation products and an MMAD less than 3 microns wherein the peak plasma concentration of the antipsychotic drug is achieved in less than 0.1 hours.

25. A method of administering olanzapine, trifluoperazine, haloperidol, loxapine, risperidone, clozapine, quetiapine, promazine, thiothixene, chlorpromazine, droperidol, prochlorperazine, or fluphenazine to a patient to achieve a peak plasma drug concentration rapidly, comprising administering to the patient by inhalation an aerosol of olanzapine, trifluoperazine, haloperidol, loxapine, risperidone, clozapine, quetiapine, promazine, thiothixene, chlorpromazine, droperidol, prochlorperazine, or fluphenazine having less than 5% olanzapine, trifluoperazine, haloperidol, loxapine, risperidone, clozapine, quetiapine, promazine, thiothixene, chlorpromazine, droperidol, prochlorperazine, or fluphenazine degradation products and an MMAD less than 3 microns wherein the peak plasma drug concentration of olanzapine, trifluoperazine, haloperidol, loxapine, risperidone, clozapine, quetiapine, promazine, thiothixene, chlorpromazine, droperidol, prochlorperazine, or fluphenazine is achieved in less than 0.1 hours.

26. A kit for delivering a drug aerosol comprising:

- a) a thin coating of an antipsychotic drug composition and
- b) a device for dispensing said thin coating as a condensation aerosol.

27. The kit of claim 26, wherein the antipsychotic drug in the composition is selected from the group consisting of olanzapine, trifluoperazine, haloperidol, loxapine, risperidone, clozapine, quetiapine, promazine, thiothixene, chlorpromazine, droperidol, prochlorperazine, or fluphenazine.

28. The kit of claim 26, wherein the device for dispensing said coating of an antipsychotic drug composition as an aerosol comprises

- (a) a flow through enclosure,

(b) contained within the enclosure, a metal substrate with a foil-like surface and having a thin coating of an antipsychotic drug composition formed on the substrate surface,

(c) a power source that can be activated to heat the substrate to a temperature effective to volatilize the antipsychotic drug composition contained in said coating, and

(d) inlet and exit portals through which air can be drawn through said device by inhalation,

wherein heating the substrate by activation of the power source is effective to form an antipsychotic drug vapor containing less than 5% antipsychotic drug degradation products, and drawing air through said chamber is effective to condense the antipsychotic drug vapor to form aerosol particles wherein the aerosol has an MMAD of less than 3 microns.

29. The kit according to claim 28, wherein the heat for heating the substrate is generated by an exothermic chemical reaction.

30. The kit according to claim 29, wherein said exothermic chemical reaction is oxidation of combustible materials.

31. The kit according to claim 28, wherein the heat for heating the substrate is generated by passage of current through an electrical resistance element.

32. The kit according to Claim 28, wherein said substrate has a surface area dimensioned to accommodate a therapeutic dose of an antipsychotic drug composition in said coating.

33. The kit according to claim 26, wherein a peak plasma concentration of antipsychotic drug is obtained in less than 0.1 hours after delivery of the condensation aerosol to the pulmonary system.

34. The kit of claim 26, further including instructions for use.